

ABSTRACT OF THE DISCLOSURE

A partial best path technique distributes route selection in a routing protocol implementation on a router. The technique also ensures that announced paths received from peers of the router (i.e., a “load”) are compared in a correct order to select best paths that
5 are then used by the router to forward packets and to advertise to the peers. When employed in a distributed architecture, the technique further reduces memory usage. To that end, the partial best path technique enhances a best path selection algorithm executed by the router to enable dispersion of the received path load among processing nodes or elements of the router, while maintaining the ordering requirement of the algorithm. The
10 partial best path technique essentially provides an enhancement to the best path selection algorithm that selects a subset of paths from a plurality of paths, with that subset being the minimal subset needed to select the best paths.